

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Appln. 09/719,424

REMARKS

The Office Action of August 20, 2002 has been received and its contents carefully considered.

Claims 1-4 and 7 have been rejected under 35 U.S.C. § 103(a) as obvious over Ueda et al in view of Incorvia et al and Kawakami et al.

Claim 8 has been rejected under 35 U.S.C. § 103(a) as obvious over Ueda et al in view of Incorvia et al and Kawakami et al as applied to claims 1-4 and 7 above, and further in view of Seshadri et al and EP 278500.

Claims 1-4 and 7 have been rejected under 35 U.S.C. § 103(a) as obvious over Fukomoto et al in view of Incorvia et al.

Claim 8 has been rejected under 35 U.S.C. § 103(a) as obvious over Fukomoto et al in view of Incorvia et al as applied to claims 1 to 4 and 7, and further in view of EP '500 and Seshadri.

Applicants have cancelled claims 1 to 4 and 7. In addition, applicants have amended claim 8 to place it independent form by specifically reciting the composition recitations of claim 1 that had been included in claim 8 as a result of its dependency on claim 1. Further, applicants have added new dependent claims 9 to 11, which correspond to the recitations of claims 2, 3 and 4, which had been alternatively included in claim 8.

Claim 8 defines a formed resin article having an electrostatic coating film, produced by electrostatically coating a formed resin article formed from a resin composition that had been defined in claim 1 and which is now defined in claim 8. This formed article not only has a good electrostatic coating film, but also is excellent in physical properties, such as thermal shock

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resistance and mechanical strength, which are important characteristics for formed articles. The formed article is also good in dimensional stability, appearance, etc. Thus, it can be advantageously used as a formed article having various excellent physical properties and a good electrostatic coating film, in a variety of fields, such as automobile parts.

Applicants will now discuss each of the references that the Examiner had relied on in rejecting claim 8.

Ueda et al disclose an antistatic resin composition comprising a thermoplastic resin, a polyetherester amide, and an alkali metal halide. Ueda et al describe nothing about electrostatic coatability.

Fukumoto et al disclose a resin composition comprising a polyamide elastomer, a graft polymer obtained by polymerizing styrene and other monomers, and a vinyl polymer containing at least one functional group. However, the disclosed composition of Fukumoto et al is a permanently antistatic resin composition, and is not a resin composition for electrostatic coating.

It is a matter of course that neither Ueda et al nor Fukumoto et al discloses a formed article having an electrostatic coating film. These references do not teach or suggest the characteristics of electrostatically coated articles formed from the resin compositions disclosed therein.

Incorvia et al (U.S. 5,534,192) disclose the use of an antistatic agent to enhance the receptivity of plastic surfaces to an electrostatically applied coating. However, a material with balanced electrostatic coatability and physical properties cannot be obtained simply by adding an antistatic agent to an arbitrary resin composition. Incorvia et al nowhere teach the necessary

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conditions to obtain a formed article excellent in both electrostatic coatability and physical properties.

Kawakami et al (U.S. 5,574,101) disclose the use of an alkali metal salt, such as sodium dodecylbenzenesulfonic acid, in a resin composition containing polyamide. However, Kawakami et al merely teach that the addition of an alkali metal salt or the like improves the antistatic effect, and describes nothing about electrostatic coatability.

As stated in the Amendment Under 37 C.F.R. § 1.111 filed on May 24, 2002, electrostatic coatability is greatly different from antistaticity. Antistaticity may be imparted to a resin composition by improving its electrical conductivity, but in order to obtain a desirable formed article having an electrostatic coating film, a resin composition needs to be used which has not only improved electrical conductivity, but also sufficient performance with respect to the weight and adhesion of the coating. Further, the formed article is required to be good in a variety of physical properties, such as thermal shock resistance and mechanical strength. Therefore, it is necessary to use a resin composition that satisfies these properties for producing a desirable formed article having an electrostatic coating film. The conditions necessary for producing an electrostatically coated formed article with the above excellent characteristics are not predictable from the disclosures about antistatic resin compositions.

Accordingly, applicants submit that the formed article defined in claim 8, and the claims dependent thereon, would not have been obvious over Ueda et al or Fukumoto et al, neither of which teaches about electrostatic coatability, even in view of Incorvia et al and Kawakami et al.

The Examiner further states that EP 278500 discloses the wide use of polyamide compositions in automobile parts, and that Seshadri (U.S. 5,219,493) discloses that thermoplastic

resin components used in automobile parts are commonly provided with an electrostatic surface coating to produce an attractive finish.

However, EP 278500 describes nothing about electrostatic coatability. Moreover, the polyamide used in EP 278500 is different from the polyamide elastomer used in the present invention, and there is no description of a specific alkali metal salt in EP 278500. Thus, EP 278500 does not teach the conditions necessary to obtain an electrostatically coated formed article with excellent characteristics.

Further, Seshadri (U.S. 5,219,493) teaches that automobile parts are provided with an electrostatic coating, but nowhere discloses a specific chemical makeup of a resin composition necessary to obtain a formed article with excellent characteristics.

As discussed above, claim 8 defines a formed resin article excellent in various physical properties and having a desirable electrostatic coating film, the formed article being obtained by electrostatically coating a formed article produced from a specific resin composition.

In contrast, Ueda et al and Fukumoto et al merely disclose an antistatic resin composition, and in no way teach or suggest a resin composition useful for producing a formed article with excellent electrostatic coatability. These references, of course, do not teach a formed article having an electrostatic coating film.

Further, as stated above, neither EP 278500 nor Seshadri teaches that the use of a resin composition with a specific chemical makeup is necessary to obtain an electrostatically coated formed article with good characteristics.

Moreover, Ueda et al and Fukumoto et al are concerned with an antistatic resin composition, and thus there is no motivation to combine the disclosures of these references with

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the disclosures of EP 278500 and Seshadri, which are not at all related to an antistatic resin composition.

Therefore, applicants submit that the invention of claim 8, and the claims dependent thereon, would not have been obvious from the combination of the references cited in the outstanding Office Action and, accordingly, request withdrawal of the rejections of claim 8.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 1 to 4 and 7 are canceled.

The claims are amended as follows:

8. (Amended) A formed resin article having an electrostatic coating film, which is produced by electrostatically coating ~~the a~~ resin article ~~according to claim 7~~ which is formed from a resin composition for electrostatic coating, the resin composition comprising 50-90 wt.% of a rubber-reinforced aromatic vinyl resin (A), 5-50 wt.% of a polyamide elastomer (B), 3-20 wt.% of a modified vinyl polymer (C) containing at least one functional group selected from the group consisting of carboxyl, epoxy, amino and amido, and 0.2-5 wt.% of at least one alkali metal salt (D) selected from the group consisting of potassium thiocyanate and an alkali metal salt of dodecylbenzenesulfonic acid, based on 100 wt.% of a total amount of four components (A)-(D).

Claims 9, 10 and 11 are added as new claims.